diagnosis was primary malignant bone tumor involving the lumbar vertebrae.

Sarcoma and myeloma were considered, but the absence of involvement of other bones and the fact that the urine failed to show Bence-Jones proteinuria, led us to give sarcoma first consideration. The only other lesion which could possibly give a similar roentgenographic appearance was a spinal cord tumor with erosion of the bodies of the vertebrae. As a rule in these cases the dorsal arches and laminae show the most extensive absorption. A course of x-ray treatments was recommended to which the patient responded very well for several weeks. Pain still continued, but was not so severe. He then developed a cord bladder, failed rapidly and died March 23, 1927.

AUTOPSY FINDINGS

Lungs, heart and abdominal viscera were negative for demonstrable gross lesion. In the lumbar region there was a fusiform enlargement of the vertebral column. This was found to be due to a new growth involving the bodies of the first, second and third lumbar vertebrae. The growth projected laterally about 2 centimeters beyond the normal limits of bone, pushing the muscles in front of it. It also bulged posteriorly, but had not penetrated the spinal canal. Longitudinal section of the vertebrae showed a rather soft red center and a gray firmer periphery. The intervertebral discs were of normal thickness. (See Fig. 4.)

No involvement of any other bones was found. On microscopic examination the tumor was made up of polyhedral plasma cells, the final diagnosis being myeloma of the lumbar vertebrae.

SUMMARY

Both cases had an involvement of the lumbar spine; in the first there was a typical generalized involvement of the flat bones, vertebrae, and the left humerus. In the second the lesion was apparently limited to three of the lumbar vertebrae. These cases illustrate the wide variance that can occur in lesions of a similar histological structure. Myeloma with only a single lesion is not commonly encountered.

St. Vincent's Hospital.

STREPTOTHRIX MENINGITIS

CASE REPORT

By BERT S. THOMAS, M. D.
Sacramento

MY reason for reporting this case is twofold: first, because of rarity, and second, because the offending organism, which eventually proved to be a *Streptothrix,* may cause others the same anxiety that it caused me before its identity could be established.

At 4:30 a. m. on September 8, 1927, I was called to see T. S., a ten months old Japanese baby. The history was that of a "cross" baby on September 7, a rise in temperature during the evening, a slight convulsion at midnight, followed by a severe shake at 4 a. m. My examination revealed a well-nourished male baby, who was still spastic, and whose appearance indicated that any external disturbance would throw him into another convulsion. Rectal temperature was 105.6. Beside slightly exaggerated reflexes (with no inequalities), the only positive finding was the bulged and reddened gums over the two upper central incisors and the recent breaking through of the two lower central incisors.

The baby was sent into the Mater Misericordiae Hospital where another short convulsion occurred, followed by the vomiting of some clear green-tinged fluid. After a colonic flushing, ice cap, tepid sponges, chloral by bowel and phenacetin by mouth, the baby became playful and apparently normal by 10 a. m. The rectal temperature was then 99.4. The white blood count was 39,300 with 80 per cent polymorphonuclears. This, with a rise in the rectal temperature to 103 by noon, made me do a spinal puncture. This yielded a cloudy white fluid under markedly increased pressure. The cell count was 3840 per cu. mm. with 89 per cent of polymorphonuclears. A Gram stain on the fluid showed many ***Gram-negative*** bacilli. These organisms were not constant as to size. Some were small enough to resemble ***Bacilli influenzae*** while others were almost as large as the Hay bacillus. The fluid was planted on all media at the command of the hospital laboratory. This included lactose-agar, meat-infusion-broth, blood agar, bile, Loeffler's serum, Hiss' serum medium, lactose broth, maltose broth, dextrose broth, inulin—plus anaërobic control. Twenty-four hours showed no growth.

Adding to the other therapeutic measures, hexamethylenamin was given, fluids were administered by hypodermoclysis, and repeated punctures were done. A gradual down-hill course terminated in the death of the baby on the ninth day.

The leukocyte count of the fluid varied from 790 to 4370 per cu. mm., and the polymorphonuclears from 79 to 98 per cent. All fluid withdrawn was carefully studied. Repeatedly, and in great numbers, these ***Gram-negative*** bacilli were present, always varying from the short and small to the large and long forms. On the sixth day a sparse, cloudy culture appeared on blood agar; these stained and appeared (long and short) as those in the original fluid. At this time an appearance of slight branching forms in the original fluid suggested the question of a streptothrix, but the constant sure Gram-negative stain let this stand only as a possibility.

Finally, on the eighth day of the disease a five-day culture in a flask containing a generous amount of dextrose-meat infusion broth from the hospital laboratory showed long branching forms, some Gram-negative, and some Gram-positive. In several days, subcultures showed the typical Gram-positive streptothrix.

There are several questions for thought and consideration in connection with this patient:

First: The origin of the meningitis. Careful smears from the oral and nasal cavities gave no clew, though the probable entrance was through the cribriform plate of the ethmoid.

Second: The explanation of the morphology and staining qualities of the organism as seen in the withdrawn fluid. This probably may only be explained by its growth outside of its usual habitat.

Third: There remains the question of the possible therapeutic value of iodids if the organism had been identified earlier.

1027 Tenth Street.

The American Legion Believes in Home Care—Of the 523 children in care of the child-welfare division of the American Legion at the end of October, 391 were in the mothers' homes, 39 with relatives, 45 in foster homes, and only 48 in legion billets, local institutions, or hospitals. During October the per capita cost of providing for children in their own homes was $10.75; in local institutions, $24.48; and in legion billets, $70.—United States Department of Labor.